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SAFE FOOD FOR CHILDREN

PREVENTING FOODBORNE ILLNESS IN CHILD CARE CENTERS AND FAMILY CHILD CARE HOMES

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More than ever food safety and sanitation are important concerns for child care providers. There are several reasons to take special care in child care settings.

One is that children under 5 years old are especially susceptible to foodborne illnesses, which can cause serious problems, even death.

A second reason is that children in diapers pose special sanitation and health problems. If a child in diapers has a foodborne illness, the illness can easily be spread to other children by contact with the feces in the child's diaper.

This booklet explains how to prevent foodborne illness in a child care facility. We hope you find this information useful in helping you reduce the risk of foodborne illness in your child care center or family/group child care home.

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FOODBORNE ILLNESS

Each year, millions of people in the United States get foodborne illness, and about 5,000 people die from complications of foodborne illness.

Foodborne illnesses are caused by eating food containing harmful bacteria (or their toxins), viruses, or parasites. These organisms can be found in food, water, and in and on humans, animals, and birds. When these bacteria, viruses, or parasites come in contact with food we eat, they can make us sick.

SYMPTOMS

Most people with foodborne illness will have some or all of the following symptoms:

- Stomach cramps
- Nausea
- Diarrhea
- Vomiting

Many times, the illness is relatively mild and symptoms only last a few days. One noteworthy exception is the illness caused by *E. coli* O157:H7, which can result in very serious illness or death, particularly in young children.

Serious complications are more common in certain people such as **children under 5 years old,** pregnant women, elderly persons, and the chronically ill.

For some illnesses, symptoms of foodborne illness may develop a few hours after eating the contaminated food. For other diseases (such as hepatitis A), there is a long time between exposure and illness—up to 50 days.

PREVENTION

Fortunately, foodborne illnesses can be prevented by following some simple steps:

- Wash your hands whenever they come in contact with body fluids, including vomit, saliva, runny noses, or feces, and after touching raw meat, poultry, fish, or eggs.
- Minimize bare hand contact with ready-to-eat foods by using utensils, tongs, scoops, or disposable gloves.
- Cook foods until well-done.
- Keep hot food hot and cold food cold.
- Use a thermometer to check temperatures of foods (page 11) and equipment (page 16).
- Clean and sanitize all surfaces and equipment that contact food.
- Cool leftovers in shallow containers in the refrigerator.

SANITATION

Proper cleaning and sanitizing can reduce the risk of foodborne illness. Cleaning is removing dirt, food, and grease with soap or detergent and water. Sanitizing is killing bacteria and viruses that can remain after cleaning. Sanitizing is done either with heat or with a sanitizing solution (such as a diluted bleach solution).

HANDWASHING

According to some studies, diarrhea is 30% more common in children who attend child care programs than those cared for at home, and child care providers have higher rates of diarrheal illness than people who do not work with children.

Handwashing is key to reducing diarrheal diseases. For example, requiring staff to wash their hands—and the child's hands—after changing diapers can reduce diarrheal outbreaks by half in a child care center.

Caregivers can pass germs on to children through their hands. Children can pass the germs on to their family members and to caregivers. Handwashing is essential to break the spread of germs from caregiver to child and from child to family members and caregivers.

WHEN TO WASH HANDS?

Key times for staff and children to wash hands include:

IN THE BATHROOM

- After using the toilet
- After changing diapers (remember to wash the hands of the diapered child, too!)
- After helping a child at the toilet

DURING MEAL PREPARATION

- Before fixing, serving, or eating food
- After touching raw meat, poultry, fish, or eggs

BEFORE EATING

- Before meals and snacks

OTHER

- On arrival at the child care facility
- After playing outside or with shared toys
- Whenever hands come in contact with body fluids, including vomit, saliva, feces, urine, blood and runny noses
- After playing with pets

Remember these handwashing instructions:

- Use warm running water and soap
- Wash for 20 seconds
- Rinse
- Dry with paper towel

CLEANING EQUIPMENT

To prevent the spread of disease in a child care setting, cleaning, sanitizing and disinfecting are essential procedures.

Cleaning is the process of washing with warm soapy water to remove dirt. Cleaning is an essential part of the process and must occur before sanitizing solutions are used. Rinse off soap before applying sanitizing or disinfecting solutions.

Sanitizing is the process of killing most germs. Sanitizing solutions are used on surfaces that come into contact with food, like counters and cutting boards and on toys. (Sometimes these solutions are called 'sanitizers for general purposes'.)

Disinfecting is the process of cleaning with the use of strong chemicals that virtually eliminate all germs. (Sometimes these solutions are called 'sanitizers for body fluids'.)

MAKING CHLORINE BLEACH SANITIZING SOLUTIONS

Chlorine bleach sanitizing solution for general purposes
Mix 1 teaspoon liquid chlorine bleach with 1 gallon of cool water (1/4 teaspoon per quart). Apply the sanitizing solution and leave wet for 2 minutes. Allow to air dry without rinsing.

Chlorine bleach disinfecting solution for body fluids
Mix 1/4 cup liquid chlorine bleach with 1 gallon of cool water (1 tablespoon per quart). Apply the disinfecting solution and leave wet for 2 minutes. Rinse and wipe or air dry.

If you prepare a chlorine bleach solution, follow these guidelines:

- Chlorine bleach solutions should be made fresh daily.
- Never mix bleach with other cleaning products.
- To protect your skin, wear gloves when cleaning with bleach solutions.

If you are using a commercial sanitizer or disinfecting solution, always follow label directions carefully. Note where and how the product is approved for use.

Sanitizing food contact surfaces and toys

Sanitize sinks, countertops, high chair trays, tables used for eating, plastic-coated placemats, bibs and toys.

Sanitize sinks by spraying or wiping them with a general-purpose sanitizing solution and allow to dry at least two minutes without rinsing.

Food contact surfaces (such as countertops, tables, high chair trays), plastic-coated placemats, bibs, and washable toys should first be cleaned with hot, soapy water and a clean cloth. Rinse off the soap, then wipe with a wiping cloth that has been rinsed in a sanitizing water mix of 1 teaspoon bleach and one gallon of cool water. Do not add soap to this mix. (If you use another kind of sanitizing solution, be sure it is approved by the Public Health Department.) Change the sanitizing solution often; do not let it become dirty. When cleaning and sanitizing food contact surfaces, use a single use or clean cloth that is used solely for wiping food service, preparation, and eating surfaces.

Sanitizing dishes and utensils

To clean and sanitize dishes and utensils (including cutting boards and knives), wash them in either:

a) a dishwasher that sanitizes using heat or chemicals, or

b) a three-compartment sink where dishes can be washed, rinsed, and then sanitized.

A dishpan can be used for the third compartment if a three-compartment sink is not available or else you can wash and rinse in one sink and sanitize in the second sink.

When using a three-compartment sink:

- Scrape food from plates, utensils, pots and pans.
- Wash dishes with hot soapy water in compartment one.
- Rinse dishes with hot water in compartment two to remove all soap and detergent.
- Sanitize the dishes in the third sink to destroy bacteria. Sanitizers may be chlorine bleach (1 teaspoon bleach per gallon of water) or other chemicals approved by the Public Health Department. If you are using a commercial sanitizer, follow label directions.

- Air-dry in a drying rack. Do not rinse off sanitizing solution.
- Store clean and sanitized dishes in a clean area. Never store these items on the floor or under sinks or drain lines.

Disinfecting surfaces that come in contact with body fluids

Disinfecting solutions are used for diaper changing tables and all other areas that have come into contact with body fluids (blood, urine, vomit, feces). These solutions are stronger because there is significant risk of illness from exposure to body fluids. When you clean up body fluids, take care to protect yourself. Disposable gloves are recommended. Wash your hands very thoroughly after you complete the cleaning.

The first step to disinfect surfaces is cleaning. Use disposable towels to remove blood, urine, vomit, or feces and discard them in a covered trash container. Then apply a disinfecting solution.

If you are using a commercial disinfectant, follow label directions carefully. Note where and how the product is approved for use.

If you prepare a chlorine bleach disinfecting solution for body fluids, mix 1/4 cup liquid bleach with 1 gallon of water (1 tablespoon per quart). Apply the disinfecting solution and leave wet for 2 minutes. Rinse and wipe or air dry.

Dishcloths, synthetic sponges, floors, and bathroom areas should also be treated with a disinfecting solution.

CARING FOR INFANTS AND TODDLERS

Safe food handling and careful diapering are critical to prevent illness in infants and toddlers.

Infants and toddlers are at high risk for foodborne illness because of their immature immune systems. When an infant or toddler eats contaminated food, or is exposed to pathogens from person-to-person contact, he or she may get sicker than an adult and the illness may be more severe.

DIAPERING

Bacteria, viruses, and parasites are present in the feces of sick and healthy people. Change babies only on designated diapering tables away from food preparation and service areas, never on tables or counters used for preparing or serving food.

Changing surfaces should be washable, made of wipeable plastic or equipped with removable paper covers.

Always wash your hands and the child's hands after changing diapers to prevent contaminating people and food. Never wash hands in the sink you use for food preparation.

Clean and disinfect diapering tables after each changing. Use disposable paper towels or wipes to remove any visible soil from the changing table. Dispose of paper towels, gloves, wipes, diapers and table liner in a lined, tightly covered trash can. Apply disinfecting solution to the entire changing surface. (If you make a chlorine bleach disinfecting solution, use 1/4 cup liquid bleach mixed into 1 gallon of water or 1 tablespoon bleach per quart of water.) Leave wet for 2 minutes. Rinse and wipe or air dry.

Be alert for signs of bloody diarrhea, which is a symptom of *E. coli* O157:H7 infection. Family members and child care providers should pursue medical treatment for the child and consult their local health department for advice on preventing the spread of the infection.

HIGHCHAIR TRAYS

Clean and sanitize highchair trays before and after each use.

BABY FOOD

Serve baby food from a dish, not directly from the commercial container. Uneaten food served to the baby in dishes should be discarded. Refrigerate unserved portions in the original can or jar.

BREAST MILK

- Ask parents to bring breast milk in clean bottles clearly marked with the child's name.
- Keep bottles refrigerated until you are ready to use them.
- Discard breast milk remaining in the bottle after a feeding.
- Use refrigerated breast milk within 12 hours. (Unused bottles of breast milk can be sent home with the infant.)
- Freeze breast milk for longer storage time—up to 2 weeks.

FORMULA

Parents may choose to bring in prepared bottles of formula. If so, label them clearly with the child's name and date prepared. Refrigerate and use within 12 hours.

If you provide formula, prepare it according to the instructions on the container. Use water from a source approved by the local health department. Label prepared bottles of formula with the child's name and date prepared. Refrigerate and use within 12 hours.

Clean and disinfect reusable bottles, bottle caps and bottle nipples before every use. Either wash them in the dishwasher ***OR*** hand wash, rinse and boil for 5 minutes just before re-filling.

Open containers of ready-to-feed or concentrated formula should be covered, refrigerated and used within 48 hours.

COOKING

Heat kills harmful bacteria, viruses, and parasites that cause foodborne illness. Thus, thoroughly cooking meat, poultry, fish, and eggs decreases the risk of foodborne illness.

Never serve rare meats or runny eggs.

BEFORE YOU BEGIN COOKING

- Wash your hands with soap and warm, running water.

  Hands can carry harmful bacteria, viruses, and parasites that contaminate food and cause illness. These microorganisms are too small to see, so even hands that look clean need to be washed with soap and water for at least 20 seconds.

- Clean and sanitize countertops.

- Use clean and sanitized pots, pans, cutting boards and utensils for cooking.

WHILE PREPARING FOODS

Keep cooked and ready-to-eat foods separate from raw meat, poultry, fish and eggs. This prevents the ready-to-eat food from becoming contaminated with bacteria that may be present on the raw food.

Purchase several cutting boards, with one to be used only for raw meats and poultry and the others for ready-to-eat foods.

Thoroughly clean and sanitize (see page 5) all equipment such as cutting boards and knives that have been used for raw meat, fish or poultry before you use them with cooked food or with raw foods such as salads that will not be cooked.

While you are cooking, wash your hands with soap and water:

- After touching raw meat, poultry, fish and eggs
- Before handling ready-to-eat foods
- After blowing your nose or using the toilet

Thoroughly wash all fresh fruits and vegetables with cool tap water before eating. Don't use bleach, soap or detergents. Scrub firm produce, such as melons and cucumbers, with a clean produce brush. Cut away any bruised or damaged areas before eating.

Keep your hands away from mouth, nose and hair.

Do not use the same spoon more than once for tasting food while preparing, cooking or serving.

COOKING TEMPERATURES

Thoroughly cook food to kill bacteria, viruses, and parasites. Check the temperature with a food thermometer.

	Required temp.
Fish and non-ground beef	**140ºF**
Ground beef	**155ºF**
Pork	**150ºF**
Poultry	**165ºF**
Leftovers	**165ºF**
Eggs	**140ºF**

Set oven temperatures to 325ºF or hotter to cook meats, fish, and poultry. Check the temperature of the food with a thermometer.

Using a thermometer is the surest way to know food is cooked thoroughly. When you aren't using a thermometer, look carefully at foods before you serve them. Poultry should be cooked until the juices run clear. Fish should flake with a fork.

Eggs must be thoroughly cooked until the white and yolk are firm (not runny). Never serve raw or partially cooked eggs—they might contain harmful bacteria such as Salmonella.

Don't let children taste batter or lick a spoon or bowl used to prepare a recipe that contains raw eggs.

Foods that might contain raw or undercooked eggs include:

- Cake batter
- Cookie dough
- Homemade eggnog
- Homemade mayonnaise
- Homemade ice cream
- French toast

(Hint: Use pasteurized liquid eggs for cookie dough or homemade ice cream—then the dough or ice cream is safe to eat without cooking.)

MICROWAVE COOKING

Before you make plans to cook foods in a microwave, check the licensing rules to determine what foods are permitted for microwave cooking.

Food cooked in a microwave oven will have cold spots. To kill pathogens, foods need to be cooked thoroughly in all parts.

Raw animal foods cooked in a microwave oven must be stirred or rotated during cooking to evenly distribute the heat. They also need to be covered during cooking. Heat the foods to at least 165ºF and let stand covered for 2 minutes after cooking so the temperature is the same throughout the food. Use a thermometer to check temperature.

FREQUENTLY CHECK FOOD TEMPERATURES:

- Immediately after cooking
- Before serving food
- Immediately after reheating

Clean and sanitize the "stem" of the thermometer before each use. This can be done with sanitizing solution (see page 5).

Cooking must be continuous. Never partially cook food, let it stand, and then finish cooking it later.

SAFE COOLING OF FOOD

If food is cooked ahead of time, cool it rapidly in the refrigerator (not on the counter).

- Put food into shallow pans—about 2 inches deep. Do not cover.
- Label the side of the pan with the date the food was cooked.

- Refrigerate immediately.
- Put hot foods on the top shelf of the refrigerator to prevent other foods from warming.
- Leave pans uncovered until completely cold. (This will often take several hours or overnight.)
- After the pans are cooled, cover with a lid, plastic wrap, or aluminum foil.

Use within two days after cooking.

REHEATING

Reheating provides an added measure of safety because it will kill most bacteria. However, reheating is **not** a dependable way to make unsafe food safe to eat because some toxins (poisons) produced by bacteria can survive the reheating process. After food is cooked, it must be kept safe by proper cooling methods and by preventing contamination during storage.

- Reheat leftovers (previously cooked foods that are potentially hazardous) to an internal temperature of 165°F or hotter. (Use a thermometer to check the temperature.)
    - ❖ When reheating cooked foods in a microwave oven, heat the food in a covered container to 165°F, rotate and stir the food during cooking, and let the food stand covered for 2 minutes after reheating.
    - ❖ Never warm breast milk or formula in a microwave oven. The fluid can get too hot and cause a burn.
- Never reheat food in crockpots or slow cookers—they take too long to heat food to safe temperatures.
- Reheat food only one time.

FOOD THERMOMETERS

You can buy a food thermometer from some grocery stores, discount stores, or most restaurant suppliers. The thermometer's temperature range should be 0°F to 220°F. Meat thermometers have a range of 130°F to 190°F; therefore, they cannot be used to check any cold temperatures.

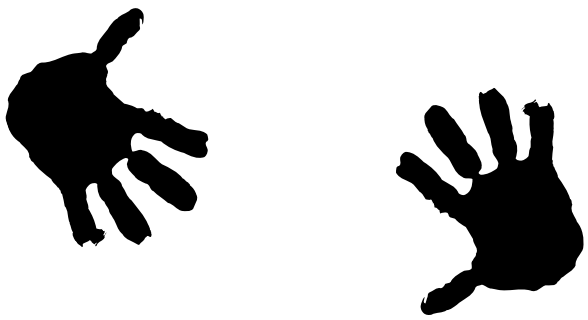
Using Thermometers

The only way to be sure food has cooked to a safe temperature inside is to measure the temperature with a clean thermometer. Use the thermometer to test for doneness near the end of the cooking time. Most thermometers are not designed to be left in the food during cooking. When you are testing a hamburger for temperature, lift it out of the pan on a spatula and insert the thermometer in from the side.

The best kind of thermometer to use is a digital thermometer. The temperature sensor is in its tip. Insert the digital thermometer at least 1/2 inch deep into the food. It will take about 10 seconds to register the correct temperature.

Bimetallic coil thermometers have a dial gauge. These thermometers read the temperature along two to three inches of the stem, up to the dimple. The entire part of the stem from the tip to the dimple must be inside the food for the thermometer to register accurately.

Make sure your thermometer is accurate. Some thermometers can be calibrated for accuracy. If yours can, follow the directions that come with it. But, if it cannot, you can still check it for accuracy. Test it in boiling water. It should read 212°F if you live at sea level. If you live at elevations higher than sea level, determine your elevation and check a reference book to determine the temperature of boiling water at that elevation. For information on thermometers and their use, check out www.fsis.usda.gov/thermy



FOOD SOURCES

All food used in your child care center or day care home must be from an approved source, such as a grocery store or food wholesaler.

Home-canned food, unpasteurized dairy foods, and wild game *cannot* be served in child care centers. See the licensing rules for more information.

Special exceptions:

Fresh fruits and vegetables from a garden or a farmer's market can be served if scrubbed thoroughly with a vegetable brush and water before use. Smaller fruits, such as berries, should be rinsed thoroughly under running water. Homemade fruit jams and jellies may be served.

FOOD BROUGHT FROM HOME

Write a policy about bringing food from home. Date the policy and be certain that every parent gets a copy and understands why you have this policy.

Foods to share with the group:

Some child care providers allow food to be brought from home only on special occasions, such as birthdays or holidays. Other possible policies are that food must be store bought and in its original package and/or there must be enough for all the children. When you enroll children in your facility, ask parents about known food allergies. Read the labels of all foods brought from home to share with the group. If one of the children you provide care for is known to have a food allergy, be certain that the allergenic food is not served to that child.

Foods for an individual child:

Meals may be provided by the parent or legal guardian. Lunches and snacks provided for one child must be labeled with the child's name, the date, and the type of food, and shall not be shared with other children. Perishable foods must be refrigerated promptly. If parents send food from home, use your menus as a guide for helping parents understand how to meet their child's daily food needs.

FOOD STORAGE

POTENTIALLY HAZARDOUS FOODS

"Potentially hazardous foods" means any food that is capable of supporting the rapid growth of bacteria. Sometimes these foods are also called "perishable" foods. These foods are usually moist and low in acid. These foods must be kept out of the "danger zone" (40° to 140°F) to prevent foodborne illnesses. Store perishable foods in the refrigerator or freezer.

Potentially hazardous foods include:

- ✓ foods of animal origin such as meat, milk, cheese, poultry, eggs, fish, and seafoods
- ✓ foods of plant origin that have been heat treated, including cooked vegetables, beans, and rice
- ✓ raw sprouts
- ✓ cut melons, peeled carrots, and other peeled vegetables and fruits
- ✓ cooked pasta
- ✓ tofu and other moist soy protein products
- ✓ sauces such as Hollandaise and many other sauces (unless they are high in acid)

Ready-to-eat, perishable foods prepared in your facility or opened containers of ready-to-eat perishable foods prepared in a food processing plant should be kept refrigerated. Mark the container with the date prepared or opened and discard the food after two days in the refrigerator.

PROPER REFRIGERATION

Refrigerator temperatures should be no warmer than 45°F. It is even better to keep refrigerator temperatures at 40°F or colder. Store meats, fish, poultry, eggs, dairy products, and food containing these products in the coldest part of the refrigerator. The coldest part is usually toward the back of the refrigerator. Keep a thermometer in the warmest part of the refrigerator, which is usually in the front near the door. If your refrigerator temperature is warmer than 45°F, adjust the setting to make it colder.

Wrap raw meat, poultry, and fish with plastic wrap or aluminum foil before refrigerating. Store them on a tray on the lowest shelf of the refrigerator so their juices do not drip onto other foods and contaminate them.

Store cut fruits and vegetables in the refrigerator.

FREEZER STORAGE

Bacteria and other germs will not grow in frozen foods, but may survive the process of being frozen. Keep freezer temperature at 0°F to retain food quality.

SAFELY THAWING FOOD

Food should be thawed by one of the following methods:

- Put frozen food into the refrigerator the day before it's needed. (You will need more than one day to thaw a large piece of meat or a whole chicken or turkey.)
- Microwave on the thaw setting immediately before cooking and then cook it thoroughly.
- Thaw under cold, running water.

Thin pieces of food can be cooked from the frozen state. Do not try to cook large pieces of frozen meats because the exterior will be overcooked before the interior is thoroughly cooked.

NON-PERISHABLE FOOD

Store non-perishable food:

- In a cool, dry area.
- On shelving that is easily cleaned and is at least 6 inches off the floor or in kitchen cupboards.
- In a tightly covered container if removed from the original packaging. Label the container, not the lid, with the name of the food. Lids can be interchangeable and might be put on the wrong container.

Never store food under any plumbing lines (especially kitchen sinks). If the lines drip, food can become contaminated.

Never store food on the floor. Dirt, rodents, insects, or water that might be on the floor can contaminate the food.

CANS AND JARS CHECKLIST

Before opening cans and jars, check to be certain the container is sealed. Discard cans that are dented on the seam. Throw out cans or jars that are rusty or very dirty. The food is either old or was stored in an unsafe place.

COVERING FOOD

Protect food from contamination by either leaving it in the original packaging, or putting it into another container and then covering the container with a lid, plastic wrap or aluminum foil. Label and date the container.

MOLDY FOOD

Some molds produce toxins that cause foodborne illness. If you see mold on cheeses such as cheddar, mozzarella, and Colby, cut away a 1-inch section surrounding the mold and throw out the moldy portion.

If you see mold on meat or poultry or in cottage cheese, jelly, jam or other semi-solid food, discard the food. You cannot completely remove the mold from these types of foods, and it could cause illness.

If a slice of bread is moldy, throw out the entire loaf. The mold roots (which cannot be seen) might have spread to other slices.

CHECK FOOD THAT CHILDREN BRING FROM HOME

If food needs to be kept cold, refrigerate immediately. If not, store in a clean area that is not on the floor. Label foods with the child's name and the date. Don't share food brought from home for one child with other children.

SNACK AND MEALTIME

DO NOT SERVE HIGH-RISK FOODS

Some foods are frequently contaminated with germs that can cause foodborne illness. These foods should never be served to young children:

- Raw, unpasteurized milk and cheeses made from unpasteurized milk
- Raw or undercooked meats and poultry such as rare hamburgers
- Unpasteurized fruit juice
- Raw sprouts of all types
- Raw seafood and fish
- Raw or undercooked eggs in which the white and yolk are not firm

BEFORE EATING

- Wash your hands (and children's hands) with soap and water immediately before serving food or eating.
- Use utensils, not your hands, to serve food.
- Clean and sanitize counters and tabletops before serving food (page 5).

Hands can carry harmful bacteria and viruses that contaminate food and cause illness. They are too small to see, so even hands that look clean need to be washed with soap and water for at least 20 seconds.

Keep food at safe temperatures before serving. Cold foods should be 45°F or colder and foods served hot should be at least 140°F. After cooking, keep hot food hot by continuing to heat at a low temperature. Do not turn off the burner and let food sit until needed. Leave cold food covered and in the refrigerator until just before serving.

DURING THE MEAL

- Do not let children share the same utensil or dish when eating.
- Do not let children serve themselves from large boxes of cookies, cereal, or crackers.
- Provide a clean and sanitized utensil for each serving bowl and serving dish.
- Do not let children eat food that has fallen on the floor.
- Do not use utensils that have fallen on the floor until they have been cleaned and sanitized.

AFTER THE MEAL:

Throw out food that has been served but not eaten. Never put milk that has been poured into glasses or cups back into the original container—throw it out! When food has been on the table, it might have been contaminated by fingers, utensils, or sneezes! The only foods that can be saved and served later are unpeeled fruits and unopened, nonperishable packaged food.

Food prepared but not served can be stored in the refrigerator and used within two days. Food containing meat, fish, poultry, eggs, and dairy products must be rapidly cooled to prevent bacterial growth. Freeze food immediately after cooking for longer storage.

FIELD TRIPS

A field trip challenges you to find ways to keep foods safe. There are two ways to keep a packed lunch safe to eat. One is to choose foods that may safely be kept at room temperature because food-poisoning bacteria do not grow in them. The other is to keep the bacteria count low by careful handling of foods. If you take perishable foods (ones that bacteria can grow in), remember you must keep hot food above 140°F and cold food below 45°F.

FOODS THAT CAN SAFELY BE KEPT AT ROOM TEMPERATURE FOR 4–6 HOURS:

- Peanut butter sandwiches
- Jelly sandwiches
- Cookies
- Crackers and bread
- Dry or hard cheeses
- Fresh unpeeled fruit and dried fruit
- Unopened cans of fruit or pudding
- Unopened juice boxes or cans

FOODS THAT MUST BE KEPT EITHER COLD OR HOT

Some foods that must be kept cold include:

- Meat sandwiches, including processed meats such as bologna
- Tuna or egg salad sandwiches
- Milk
- Opened cans of fruit
- Peeled or cut fruits and vegetables, including cut melons

Keep food cold by:

- Putting chilled food into an insulated lunch bag with a frozen pack or with a frozen juice box.
- Filling a cooler with ice, putting food in a leak-proof container, and putting the containers into the ice.

- Store coolers out of the sun, but not in a car or van.
- If the cooler contains perishable foods, put a thermometer inside the cooler and check to be certain the food has remained cold until it is served.

Chill cold food in the refrigerator overnight before the field trip. Prepare sandwiches a day before the field trip and freeze them. Pack the frozen sandwiches in an insulated chest. Lettuce and other greens do not freeze well. Pack these separately and add to sandwiches before eating.

Foods to be served hot such as soup, sloppy Joe mix, and casserole mixtures can be kept hot safely in a thermos for up to two hours.

- Fill the thermos with very hot water.
- Let the thermos sit for about 10 minutes.
- Remove water from the thermos and fill with hot food.

Packing Tips

- Pack food in a clean container that is washed and sanitized after every use.
- When using paper bags for food, be sure they are clean.

To keep the bacteria count low, always prepare food for field trips:

- With clean hands
- In a clean work area
- On clean and sanitized surfaces

Check food that children bring from home

If food needs to be kept cold, be sure there is a way to do so. Suggest to parents they pack lunches with either a frozen gel pack or a frozen juice box to keep the lunch cold.

WASH HANDS BEFORE EATING

When children are on a field trip, they are likely to be touching many places that can contaminate their hands with germs. Thus, planning for hand washing is an essential part of planning for a field trip. If you take children on a short walk to a park, each child should wash his or her hands upon returning to your facility. If food is served at the park, be certain the children wash their hands at the park before they eat. If no hand washing facilities are available at the park, sanitizing hand wipes are better than no hand washing, but are not as effective as washing hands with soap and water.

Whenever children are on a farm tour or any other place where they are around animals, take extra precautions to be certain all the children have thoroughly washed their hands before they are given any food to eat. (There have been outbreaks of foodborne illness among children who went on field trips to petting zoos and farms.)

If running water and soap will not be available when you take the children for an extended field trip, make alternative plans for the children to wash their hands. Obtain a large insulated container with a spigot and fill it with warm water. Before eating anything, each child should wet their hands under the spigot, lather with soap, then rinse their hands thoroughly with water running out of the spigot. (Use a bucket to catch the waste water and dispose of the water down a sewage drain whenever possible.)

A SPECIAL ALERT

Unpasteurized milk is not safe for children. It can be a source of *E. coli* O157:H7 as well as other potentially harmful bacteria. If children are on a field trip to a dairy, *NEVER let them sample raw, unpasteurized milk.*

Pets and Food Preparation

Always wash your hands and children's hands immediately after playing with pets.

Do not allow cats or other pets to walk on countertops and food preparation or eating surfaces. Caged animals, such as birds, gerbils and hamsters, should always be kept away from food preparation and serving areas.

Reptiles such as lizards, turtles, and snakes may carry bacteria that can cause life-threatening illnesses in humans. Because young children are at increased risk for Salmonella and other reptile-associated infections, the Centers for Disease Control and Prevention recommend reptiles should not be kept in a child care center or a family child care home.

SOURCES OF INFORMATION:

Hillers, VN, Aegerter, M. 2001. *You Can Prevent Foodborne Illness*, PNW0250. Washington State University

Graves, DE, Suitor, CW, Holt KA, eds. 1997. *Making Food Healthy and Safe for Children: How to Meet the National Health and Safety Performance Standards—Guidelines for Out-of-Home Child Care Programs*. Arlington, VA: National Center for Education in Maternal and Child Health.

Fraser A, Sawyer C, Youatt, JP, Murphy A, Andrews S. 1995. *What you can't see can hurt your kids and you: Preventing foodborne illness in your child care center or day care home*. Extension Bulletin E-2568, Michigan State University

Food Safety and Inspection Service. 1999. *Keeping Kids Safe*. A Guide for Safe Food Handling and Sanitation for Child Care Providers. U.S. Department of Agriculture. Avaliable at www.nal.usda.gov:8001/safety/kidssafedit.pdf

Food and Drug Administration. 2001. *Food Code*. U.S. Public Health Administration.

Washington State Department of Social and Health Services. *Minimum Licensing Requirements for Child Day Care Centers*. Chapter 388–150 Washington Administrative Code.

Community Environmental Health Programs. 1992. *Rules and Regulations of the State Board of Health for Food Service*. 246–215 WAC. Washington State Department of Health.

Mermin J, Hoar B, Angulo FJ. 1997. Iguanas and *Salmonella* Marina Infection in Children: A Reflection of the Increasing Incidence of Reptile-associated Salmonellosis in the United States. *Pediatrics* 99:399–402.

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